

### REMARKS/ARGUMENTS

In paragraph 4 of the Office action, claims 11 – 20 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The examiner indicates that the language “each diagonal in the array” implies diagonals in both directions (positive and negative slope), and that the examiner is not aware of disclosure discussing shifting in both directions at the same. In response, independent claim 11 has been amended to replace the language “each diagonal” with the language “a plurality of diagonals” which has been used without objection in claims 1 and 26. Accordingly, the rejection of claim 11 under 35 U.S.C. § 112, first paragraph, is believed to be overcome.

In paragraph 6 of the Office action, claims 12 – 20 stand rejected under 35 U.S.C. § 112, first paragraph, because they depend either directly or indirectly on claim 11. Inasmuch as the rejection of claim 11 has been overcome, it is believed that the rejection of claims 12 – 20 is similarly overcome.

In paragraph 9 of the Office action, each of claims 3, 11, 13, and 21 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is the examiner’s position that it is “not clear how the size of the array is defined” in each of those claims. In response, claim 3 has been amended to replace “array size” with “N”. The Examiner will recognize that “N” is the dimension of one of the sides of the N x N array identified in the preamble of claim 1. In independent claim 11, the phrase “where N equals the size of the array” has been amended to read “where N equals the size of an edge of the array” to provide the necessary specificity. Claim 13 has been amended in a manner similar to claim 3. Claim 21 has been cancelled.

In paragraph 10 of the Office action, claims 3, 13, and 21 are objected to because “it is not apparent how y and R indicate a row and a position in the row and how x and C indicate a column and a position in the column.” The Examiner is correct in that this language is inaccurate. In claims 3 and 13, the language has been amended to make it clear that R and x are numbers indicating a row and a position in the row and C and y are numbers indicating a column

and a position in the column, respectively. For example, looking at FIGs. 15B and 15C, it is seen that when R equals 0, indicating the top row of the array, that x indexes from 0 to 3 from left to right across the array. When C equals 3, indicating the first column of the array, y indexes from 3 to 0 from top to bottom within the first column. The applicant would like to thank the examiner for the close reading of the claims and for identifying this inaccuracy.

In response to paragraph 12, claim 6 has been amended to address the insufficient antecedent basis objection. Claims 21 through 25 have been cancelled.

In view of the foregoing, it is believed that claims 3, 11 through 20, and 26 are now in condition for allowance with respect to 35 U.S.C. § 112, second paragraph.

In paragraph 14 of the Office action, claims 1, 9-11, 19-20, and 26 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hanounik, *et al.*, "Linear-Time Matrix Transpose Algorithm Using Vector Register File With Diagonal Registers," (hereinafter "Hanounik"). The examiner and the applicant appear to be construing this reference in a similar fashion. The difference between applicant's position and the examiner's position is that the examiner is focusing on a two-by-two array having a first diagonal comprising elements 21 and 12 and a second two-by-two array having a second diagonal comprising elements 87 and 78. While the applicant disagrees that Hanounik can be used in such a selective manner, the two-by-two array is a trivial case. Therefore, independent claims 1, 11, and 26 have been amended to indicate that N is greater than 3. The claims thus exclude the trivial case of a two-by-two array. With that change, it is believed that independent claims 1, 11, and 26 are no longer anticipated by Hanounik. Accordingly, claims 1, 11, and 26 are believed to be patentable with respect to 35 U.S.C. § 102. The rejection of those claims, as well as their dependent claims, should be withdrawn.

In paragraph 23 of the Office action, claims 21-25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Apisdorf, *et al.*, U.S. Patent No. 6,968,447. In response, claims 21 through 25 have been cancelled without prejudice to the resubmission of those claims in this or a continuation application.

In paragraph 29 through 44, claims 2-8 and 12-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanounik, as applied above, in view of Apisdorf, as applied

above. At this time, applicant does not submit arguments demonstrating the patentability of these dependent claims. Applicant reserves the right to argue the patentability of the dependent claims at a later date in the event that should become necessary.

Applicant wishes to thank the examiner for the response to arguments found in paragraphs 45 through 51 of the Office action. The examiner's response was helpful in clarifying the examiner's position.

#### **REQUEST FOR INTERVIEW**

Applicant has made a diligent effort to place the instant application in condition for allowance. The primary obstacle to allowance of claims 1-20 and 26 appears to be disagreement over how broad or how narrow the word "diagonal" can be interpreted. That would appear to indicate the primary obstacle is a matter of selecting the appropriate words, rather than the claimed invention lacking in merit. For that reason, if the examiner is of the opinion that the instant application is not placed in condition for allowance through this amendment, the

examiner has respectfully requested to contact applicant's attorney at the telephone number listed below so that additional amendments may be discussed **before the issuance of an Office action finally rejecting the claims.**

Respectfully submitted,



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